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A Study of the Effects of Time on Visitors' Reactions to the "Space Unlimited" Exhibit

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I N T R O D U C T I O N

This report presents the findings of a study designed to investigate the effect of time on visitors' reactions to the U.S. exhibit "Space Unlimited" held in Frankfurt/Main between January 5th and February 3rd, 1957.*

For this purpose two waves of interviews were obtained: One made at the exhibition exit in Frankfurt and the other approximately four weeks later at the respondent's home. Both waves of interviews consisted of probability type samples of exhibition visitors 16 years of age and over (400 and 386 persons respectively). Within the report they are identified as "Exit" and "Home" samples. While the "Exit" sample was interviewed immediately following the random selection of the respondent as he left the exhibition, respondents in the "Home" sample were merely contacted at the exhibit and interviewed four weeks later. The procedure followed in drawing both samples was to select approximately the same number of persons each day from the beginning on January 5th, through to the very end, Sunday, February 3rd. To insure randomness and to avoid any uncontrolled or biased choice by the interviewer, the third person appearing on the half hour and the hour at the exit was interviewed and contacted, respectively.

Interviewing for the survey was conducted by DIVO - Markt-, Meinungs-, und Sozialforschung G.m.b.H., Frankfurt/Main, a German research organization working under contract with the Research Staff.

* See report No. A-3, dated October 24, 1956 "The U.S. 'Space Unlimited' Exhibit at the Berlin Fair 1956" and report No. A-8, dated February 27, 1957 "The Frankfurt Showing of the 'Space Unlimited' Exhibit."

S U M M A R Y

EFFECT OF TIME ON VISITORS' REACTIONS

The enthusiasm which visitors first show after viewing the exhibit is less evident with the passage of time, since four weeks later the percentage of people selecting the most enthusiastic category is then smaller than that for the less extreme one (i.e. 40% answered "very well" while 49% selected 'well" when asked for their overall impression of the exhibit . Four weeks earlier the figures were 53% and 43%). The greatest "fading of enthusiasm" occurs among the men, the better educated, prestige-occupations and older people.

Credit given to the U.S. for its activities in space research also showed a slight decline among the later interviewees, such losses may be a reflection of the lessened enthusiasms found four weeks after seeing the exhibit.

Reactions to details seem to be relatively unaffected by the passage of time. Results remain basically unchanged in regard to the details liked, i.e. the exhibit's arrangement, form and setup once rated favorably appear to maintain their appeal for at least a month. In regard to the different sections of the exhibit, it was found that rockets gained and the lecture room lost in appeal; while the electronic laboratory was more likely to be designated as difficult to understand.

One of the most important findings of the study is that the understanding of the theme of the exhibit increased significantly with the passage of time. This is especially true in the case of those respondents whose enthusiasm had been in the middle rather than extreme range. Another interesting finding was that respondents' estimation of the degree of knowledge acquired through the exhibit did not change with the passage of time.

DISSEMINATION

Judging from the replies of the "Home" sample, the extent of disseminating activities of the audience was rather large even four weeks after visiting the USIS "Space Unlimited" exhibit. Almost all visitors talked - some, rather frequently - about what they saw afterwards. The importance that dissemination plays upon understanding of the basic theme is vividly portrayed by the finding that the more frequently viewers speak about the exhibit with other people the greater is their own degree of comprehension of the exhibit. A wide personal circle was reached by the disseminators and almost no adverse dissemination could be discovered.

Sizeable proportions of visitors indicated exposure to other sources of information about the subject after seeing the exhibit. Newspapers were the leading source of additional information with various details of the exhibit being mentioned most often (46%).

I. Sample Comparability

BOTH SAMPLES IDENTICAL ...

To insure the necessary comparability of the two visitor cross-sections, strict random procedures were employed resulting in identical test groups. Comparison of the two samples reveals that none of the differences in regard to sex, age, occupation, education and residence are statistically significant.

COMPOSITION OF SAMPLES

	Interviewed at Exhibit Exit (400)	Interviewed at Home Later (386)
Sex:		
Men	91%	93%
Women	9	7
	100%	100%
Education:		
Elementary school	28%	29%
Beyond elementary	72	71
	100%	100%
Age:		
Up to 18 years	17%	18%
19 to 24 years	19	20
25 to 34 years	25	26
35 to 44 years	16	16
45 to 54 years	12	13
55 years and over	11	7
	100%	100%
Occupation:		
Professionals	19%	16%
Businessmen	6	6
White-collar workers	21	27
Skilled laborers	16	17
Semi-skilled laborers	2	1
Domestic service	3	2
Farmers; farmhands	1	*
Housewives	3	2
Pensioners; retired	2	2
Students; apprentices	27	27
	100%	100%
Place of Residence:		
City of Frankfurt	55%	54%
Vicinity of Frankfurt	18	17
Other (including distant places such as Munich and Hamburg)	27	29
	100%	100%

* Less than one half of one per cent.

II. Effect of Time on General Impressions

OVERALL ENTHUSIASM SOMEWHAT LESS ...

Though most of the exhibition visitors still rate the exhibit favorably, i.e. "well" or "very well" after four weeks, significantly fewer people say so afterwards than did so under the immediate impression of the display (96% versus 89%). The enthusiasm which was indicated by the fact that a majority (53%) of those interviewed at the exit selected "very well" rather than merely "well" is less evident with the passage of time since four weeks later the position of those two categories is reversed (i.e. 49% selected "well", while 40% answered "very well").

"What is (was) your overall impression of the American exhibition in Frankfurt? Did you like it very well, well, fairly well, not so well, or not at all?"

	Exit (400)	Home (386)
Very well	53%	40%
Well	43	49
Fairly well	4	10
Not so well	*	1
Not at all	-	*
No opinion	-	-
	100%	100%

Comparison of population groups shows that the greatest "fading of enthusiasm" occurs among the men, better educated, prestige-occupations and older people. Visitors coming from outside of Frankfurt seem to be especially influenced by the fading effect of time.

* Less than one half of one per cent.

"What is (was) your overall impression of the American exhibition in Frankfurt? Did you like it very well, well, fairly well, not so well, or not at all?"

	Very well		Well		Fairly well		Not so well		Not at all		No opinion		No. of cases	
	Exit	Home	Exit	Home	Exit	Home	Exit	Home	Exit	Home	Exit	Home	Exit	Home
Total Visitors	53%	40%	43%	49%	4%	10%	*%	1%	-%	*%	-%...100%	-%...100%	400	386
Sex:														
Men	55	41	41	48	4	10	*	1	-	*	-	-	364	361
Women	39	28	58	64	3	8	-	-	-	-	-	-	36	25
Education:														
Elementary school	55	43	42	48	3	9	-	-	-	-	-	-	113	112
Beyond elementary	52	38	43	50	5	11	*	1	-	*	-	-	287	274
Age:														
Up to 18 years	52	25	44	62	4	10	-	3	-	-	-	-	69	69
19 to 24 years	38	33	56	58	6	9	-	-	-	-	-	-	77	78
25 to 34 years	48	37	46	44	5	16	1	2	-	1	-	-	109	100
35 to 44 years	60	46	37	47	3	7	-	-	-	-	-	-	60	61
45 to 54 years	65	44	33	46	2	10	-	-	-	-	-	-	46	50
55 years and over	69	82	28	18	3	-	-	-	-	-	-	-	39	28
Occupation:														
Professionals	56	34	38	49	5	13	1	2	-	2	-	-	77	61
Businessmen	70	52	30	44	-	4	-	-	-	-	-	-	23	25
White-collar workers	57	48	41	42	2	10	-	-	-	-	-	-	86	104
Skilled laborers	40	46	57	45	3	9	-	-	-	-	-	-	65	67
Semi-skilled laborers	57	50	43	25	-	25	-	-	-	-	-	-	7	4
Domestic service	77	17	23	66	-	17	-	-	-	-	-	-	13	6
Farmers; farmhands	50	-	50	100	-	-	-	-	-	-	-	-	2	1
Housewives	59	50	33	50	8	-	-	-	-	-	-	-	12	6
Pensioners; retired	57	83	43	17	-	-	-	-	-	-	-	-	7	6
Students; apprentices	47	26	46	60	7	11	-	3	-	-	-	-	108	106
Place of Residence:														
City of Frankfurt	52	45	45	45	3	10	-	-	-	*	-	-	222	210
Vicinity of Frankfurt	50	36	46	55	4	9	-	-	-	-	-	-	70	64
Other	56	33	36	54	7	10	1	3	-	-	-	-	108	112

* Less than one half of one per cent.

MORE "HOME" INTERVIEWEES SAY THEY WERE DISAPPOINTED ...

Although 77 per cent of the later interviewees said the exhibit was at least as good as expected or better than expected, this is significantly less than was found among those interviewed immediately outside of the exhibit (90%). In fact, twice as many of the "Home" sample as against the "Exit" group reported that they were disappointed (18% vs. 8%).

Among those who were disappointed, the "poor presentation" is brought up more frequently in the "Home" sample than among on-the-spot interviewees.

"Did this exhibition come up to your expectations, did it exceed them, or did it disappoint you in one way or other?"

	Exit		Home	
Better than expected	38%	90	32%	77
As expected	52		45	
Disappointed	8		18	
No opinion	2		5	
	100%		100%	

IF "Disappointed":
"In what respect have you been disappointed?"

Insufficient details	5%	6%
Poor presentation	2	7
Insufficient general idea	1	2
Miscellaneous	*	3
	8%	18%

IF "Disappointed":
"In what respect have you been disappointed?"

Comments of those pointing to "Poor Presentation": 7%

"The guided tours were not thorough enough. People were rushed on and did not get expert explanations.
"I expected more physical tests to be conducted as it was done at the atomic exhibition. There were too many pictures."
"The exhibition was badly organized. Because of jostling and shoving, of which the school-children were especially guilty, I was unable to get a good look at things."
"The exhibition was too crowded. For laymen the subject matter was too hard to understand. Besides there was not enough time to look at everything."
"I was disappointed by the arrangement of the exhibition. The overall information on the aims and purposes of the exhibition should have been given at the beginning, and not at the end."
"One did not have time enough to get a good look at things, besides, there were too many people standing in front of the exhibits. It was hard to see anything."

* Less than one half of one per cent.

A study of the results to this question through comparison of the population groupbreaks reveals again that the more elite-groups (men, people with higher education, occupation, etc.) are significantly less favorable in their judgments of their expectations of the exhibit after a passage of time than can be found among their counter-part groups.

"Did this exhibition come up to your expectations, did it exceed them, or did it disappoint you in one way or other?"

	Better than expected		As expected		Disappointed		No opinion		No. of cases	
	Exit	Home	Exit	Home	Exit	Home	Exit	Home	Exit	Home
Total Visitors	38%	32%	52%	45%	8%	18%	2%...100%	5%...100%	400	386
Sex:										
Men	37	31	53	45	8	19	2	5	364	361
Women	47	40	42	44	8	12	3	4	36	25
Education:										
Elementary school	41	37	49	47	8	12	2	4	113	112
Beyond elementary	37	30	53	45	8	20	2	5	287	274
Age:										
Up to 18 years	47	29	48	53	4	17	1	1	69	69
19 to 24 years	28	31	64	41	5	23	3	5	77	78
25 to 34 years	35	26	51	47	13	23	1	4	109	100
35 to 44 years	43	34	49	48	5	13	3	5	60	61
45 to 54 years	37	36	50	44	13	12	-	8	46	50
55 years and over	46	54	48	32	3	7	3	7	39	28
Occupation:										
Professionals	30	28	55	37	14	28	1	7	77	61
Businessmen	39	32	52	52	-	16	9	-	23	25
White-collar workers	39	36	51	44	8	11	2	9	86	104
Skilled laborers	38	40	52	45	8	14	2	1	65	67
Semi-skilled laborers	29	-	57	100	14	-	-	-	7	4
Domestic service	54	33	38	50	-	17	8	-	13	6
Farmers; farmhands	50	-	50	-	-	100	-	-	2	1
Housewives	59	83	33	17	8	-	-	-	12	6
Pensioners; retired	86	83	14	17	-	-	-	-	7	6
Students; apprentices	37	22	57	51	6	23	-	4	108	106
Place of Residence:										
City of Frankfurt	39	35	53	44	7	16	1	5	222	210
Vicinity of Frankfurt	31	30	57	48	9	17	3	5	70	64
Other	41	29	48	45	8	22	3	4	108	112

III. Exhibit's Impact on Attitudes toward the U.S.

The purpose of this chapter is to determine the effect of time on the impact of the exhibit in regard to attitudes toward the United States. A battery of five questions was asked for this purpose so that any differences noted after four weeks' interval might be studied.

In the first question asking whether or not the audience felt that the exhibit overemphasized the merits of U.S. scientists, no significant differences could be discovered in both samples. Most people within both visitors groups express their belief that the merits of the U.S. scientists were presented as they really are (88% in the "Exit" sample and 83% in the "Home" sample).

"Do you think that this exhibition overemphasized the merits of American space scientists, or were their merits presented as they really are?"

	Exit	Home
Overemphasized	7%	9%
As they really are	88	83
No opinion	5	8
	100%	100%

SMALLER MAJORITY SEES PEACEFUL BENEFITS RESULTING FROM SPACE RESEARCH ...

Four statements were included in the next question. The first that space research has peaceful purposes is clearly favorable. The next three, that space research is senseless, that it is an evil, and that it gave the United States an opportunity to show off its technical superiority, were clearly unfavorable. The last statement, that space research should be pursued on an international level may be considered neutral.

While the percentages of people choosing statements two to five does not show any appreciable differences, the clearly positive statement was chosen somewhat less often four weeks later than in the first sample. The drop, while slight, is statistically significant.

"Which of the following statements comes closest to your attitude toward space research?"

	Exit	Home
1 - In space research science and technology are applied for peaceful purposes, and for the benefit of mankind	72%	65%
2 - Space research is a senseless human undertaking	-	1
3 - Space research is mainly a military matter and therefore can only develop into an evil for mankind	3	3
4 - Space research is only a new attempt of the Americans to demonstrate their technical superiority	2	*
5 - In order to prevent disputes between nations, space research should only be pursued on an international level	21	25
No opinion	2	6
	100%	100%

* Less than one half of one per cent.

BELIEF THAT U.S. SPACE RESEARCH PURSUES PEACEFUL PURPOSES DECLINES WITH TIME ...

Even more revealing are the findings to the following question. People were asked whether American space research was carried out more for warlike or more for peaceful purposes.

While in the "Exit" sample only 7 per cent held the opinion that U.S. space research mainly pursues warlike purposes, nearly twice as many (13%) said so four weeks after seeing the exhibit. The positive attitude - that U.S. space research is dedicated to peaceful purposes - dropped over the same period from 61 per cent to 51 per cent. Both differences are well beyond chance variation and must be considered significant.

"After having seen this exhibition, do you have the impression that American space research is carried on more for warlike or more for peaceful purposes?"

	Exit	Home
More for warlike purposes	7%	13%
More for peaceful purposes	61	51
For both purposes (volunteered)	25	31
No opinion	7	5
	100%	100%

CERTAINTY THAT THE U.S. IS WILLING TO SHARE ITS FINDINGS WITH OTHER NATIONS DROPS CONSIDERABLY ...

Another dimension of attitudes towards the U.S. was approached by a question as to what extent the respondents thought the United States is willing to share its research findings with other nations. Again, greater confidence was found among those interviewed at the exhibit (41% "very willing") than was found among those interviewed at home four weeks later (28% "very willing").

"To what extent do you think the United States of America is willing to share its scientific findings with other nations: Is it very willing, somewhat willing, not willing or definitely unwilling?"

	Exit	Home
Very willing	41%	28%
Somewhat willing	52	62
Not willing	2	3
Definitely unwilling	1	1
No opinion	4	6
	100%	100%

TIME NOT A FACTOR IN AUDIENCE JUDGMENT OF CHANGED IDEAS ...

The final question probed for indications as to whether the respondents' idea of the United States had been influenced in any way through the exhibit. The replies from both samples are amazingly identical, allowing the conclusion that time had no influence on self-evaluation of changed ideas through visiting the exhibit.

All attitudinal changes indicated were of a favorable nature.

"Do you feel that your idea of America has been changed or influenced in any way through this exhibition here?"

	Exit	Home
Yes	11%	10%
No	88	88
No opinion	1	2
	100%	100%

IF "Yes":
"In what respect?"

Summary Table

	Exit	Home
The scientific and technical achievements of the Americans have deeply impressed me	3%	4%
The exhibition proved to me that science and research get generous support in the States	3	2
American willingness to share scientific findings impressed me favorably	2	1
This exhibition served to enhance American prestige	2	2
Other answers	1	1
No opinion	-	1
	11%	11%@

@ Some respondents gave more than one answer.

IV. Reactions to Details

NO CHANGE IN COMMENTS ABOUT WHAT WAS LIKED ...

Both groups were asked about their likes and dislikes of the exhibit. The results remained basically unchanged in regard to the details liked. In other words, the details of the exhibit, its arrangement, form and setup once rated favorably maintained their appeal for at least a month.

"What did you particularly like about the exhibition?"

Summary Table

	Exit	Home
Selection of Details	(83%)	(81%)
Lecture on the earth satellite	43%	40%
The films	12	12
Exhibition of electronic devices	12	13
Rocket models	11	13
Medical research	3	2
Aerial photographs	2	1
General Comments	(37%)	(39%)
Clear arrangement	29	27
Information on space research	4	7
Other answers	4	5
Everything Liked	(1%)	(2%)
No opinion/No answer	(*%)	(1%)
	121%@	123%@

* Less than one half of one per cent.
@ Some respondents gave more than one answer.

SLIGHT INCREASE IN CRITICISMS ...

A minor change, however, can be noticed in the answers to the question about what the visitors disliked. While only 56 per cent among the immediate interviewees expressed any criticisms, this figure increased to 63 per cent among those interviewed later at home. At the same time those who offered no criticism because they liked everything decreased from 37 per cent to 30 per cent. As indicated by the percentages of critical comments, the impression that the exhibit "lacked information" seems to be particularly greater after the passage of time.

"And what did you not particularly like about this exhibition?"

Summary Table

	Exit	Home
Criticism	56%	63%
No criticism		
I liked everything	37	30
No opinion/No answer	7	7
	100%	100%
Type of Criticism		
Too many people	31%	28%
Lack of information	6	14
Manner of presentation	9	9
Exhibit of general interest	2	3
Text and information in English	2	2
Film presentation	3	5
Other criticisms	8	9
	61%@	70%@

Examples of Comments concerning "Lack of Information" 14%

"The staff wasn't large enough to be able to answer individual questions. No explanations whatever were given on the electronic brain."
"The earth satellite program wasn't explained elaborately enough."
"They sort of moved in leaps and bounds when illustrating the development of jet planes. Therefore the average visitor couldn't grasp all of it."
"The mechanism of the propulsion units of rockets wasn't presented in such a way as to make the subject easily comprehensible to laymen."
"It was somewhat difficult to follow the explanations given in the electronics section."

@ Some respondents gave more than one answer.

ROCKETS GAIN, LECTURE ROOM LOSES IN APPEAL ...

While the "Exit" sample answers given by the respondents showed the "lecture room" clearly in first place (39%) as the best liked section and "rocket models" second (21%), the two sections share the leading position among the preferences of the "Home" sample (28% for each).

"Which section did you like the best?" (CARD)

	Exit	Home
Film	10%	14%
Historical section	9	7
Rocket models	21	28
Stratoballon	5	11
Medical research	12	15
Jet planes	7	11
Lecture room	39	28
Electronic laboratory	16	19
All	-	-
None	-	-
No opinion	1	3
	120%©	136%©

"HOME" INTERVIEWEES CALLES ELECTRONIC LABORATORY EVEN MORE DIFFICULT TO UNDERSTAND THAN "EXIT" INTERVIEWEES DID ...

With one exception, the individual sections remain essentially unchanged in their order of "difficult to understand". Memories of the "difficulties" attendant upon the electronic laboratory, however, apparently become solidified with the passage of time and it is named much more often than by the other group.

"Which section did you think particularly difficult to understand?"

	Exit	Home
Film	1%	1%
Historical section	1	4
Rocket models	14	11
Stratoballoon	5	4
Medical research	7	7
Jet planes	3	3
Lecture room	3	4
Electronic laboratory	19	33
All	-	-
None	16	7
No opinion	31	30
	100%	104%©

© Some respondents gave more than one answer.

LECTURE ROOM MENTIONED LESS OFTEN, ELECTRONICS LAB MORE OFTEN AS SECTION PEOPLE WOULD LIKE TO RE-VISIT ...

While the factors of liking and desire to understand undoubtedly play a role in determining what sections people would like to re-visit if they had the chance, their exact weight must remain speculative. The relationship does seem to exist inasmuch as fewer "Home" interviewees as against "Exit" interviewees chose the lecture room as the section they liked best, and fewer "Home" as against "Exit" interviewees nominated that section as the one they would like best to re-visit (13% and 20% respectively).

The electronics lab which jumped in mentions as "most difficult" to understand, was named by more people four weeks later (21%), than named it at the exhibit exit (15%) as their choice for a return visit.

"Which section would you like best to revisit?" (CARD)

	Exit	Home
Film	8%	7%
Historical section	8	8
Rocket model	15	17
Stratoballoon	8	9
Medical research	12	11
Jet planes	9	9
Lecture room	20	13
Electronics laboratory	15	21
None	*	1
No opinion	5	4
	100%	100%

THE TWO GROUPS CHOOSE THE SAME SECTIONS AS OFFERING MOST NEW THINGS ...

A third question designed to discover which of the section in the opinion of the visitors had the most new things to offer produced identical results in both samples, thus time does not seem to produce any differences in this respect.

"Which section offered the most new things as far as you are concerned?" (CARD)

	Exit	Home
Film	3%	4%
Historical section	5	9
Rocket model	23	29
Stratoballoon	8	10
Medical research	24	23
Jet planes	5	8
Lecture room	16	10
Electronics laboratory	26	28
None	2	1
No opinion	8	7
	120%@	129%@

* Less than one half of one per cent.
@ Some respondents gave more than one answer.

REMEMBRANCE AND UNDERSTANDING OF LECTURE ROOM NOT AFFECTED BY TIME ...

To determine the relative effectiveness of the three main sections of the exhibit, additional questions were asked concerning the recorded lecture (explaining the central theme of the exhibit), the electronics laboratory (containing electrical equipment to be used in the earth satellite), and the medical section (designed to acquaint the visitors with medical problems related to space travelling). The queries focused on: (1) whether they remembered the section and (2) whether they understood the main theme of the section.

In both samples, memory as well as degree of comprehension of the recorded lecture remained stable and completely unaffected by time.

"In a lecture room - where everybody had to stand - you saw an illuminated globe. Do you remember this lecture?"

	Exit	Home
Yes, remember	98%	94%
No, don't remember	2	6
	100%	100%

IF "Yes, remember":
"What did this lecture tell you?"

Summary Table

	Exit		Home	
Clear comprehension suggested	79%	80%	78%	83%
Some comprehension suggested	6	6	6	7
No comprehension suggested	13	14	10	10
	98%	= 100%	94%	= 100%

Among those people who remembered the lecture, the proportion calling it easy to understand is the same in both groups.

"Was this lecture, in your opinion, easy or difficult for most people to understand?"

	Exit		Home	
Easy to understand	84%	85%	77%	82%
Difficult to understand	11	11	12	13
No opinion	3	4	5	5
	98%	= 100%	94%	= 100%

MORE "HOME" INTERVIEWEES REMEMBERED THE ELECTRONICS LABORATORY, BUT FEWER COMPREHENDED IT ...

The electronics lab was remembered by more people in the sample interviewed four weeks after seeing the exhibit (91%) as compared with the proportion "remembering" it right after going through (84%). A significantly smaller proportion of them, however, were able to present a "clear comprehension" of what they saw there than was found among those remembering the lab at the exhibit exit. "Clear comprehension" dropped from 52 per cent to 41% and "No comprehension" went up from 34 per cent to 43 per cent. This finding, it should be pointed out, is in concurrence with previous findings that people four weeks later were much more likely to consider the electronics lab (already a difficult section to grasp) as even more obtuse.

"At this exhibition there was a laboratory section with many electronic devices. Do you remember this part of the exhibition?"

	Exit	Home
Yes, remember	84%	91%
No, don't remember	16	9
	100%	100%

IF "Yes, remember":
"What idea was expressed in this section?"

Summary Table

	Exit		Home	
Clear comprehension suggested	44%	52%	37%	41%
Some comprehension suggested	12	14	15	16
No comprehension suggested	28	34	39	43
	84% =	100%	91% =	100%

REMEMBERING AND UNDERSTANDING OF MEDICAL SECTION BASICALLY UNAFFECTED ...

Finally, in respect to the medical section, both samples show no significant differences in remembrance and comprehension.

"Do you remember the section of the exhibition which dealt with medical questions in the field of space research?"

	Exit	Home
Yes, remember	89%	85%
No, don't remember	11	15
	100%	100%

IF "Yes, remember":
"What, do you think, was the main idea of this section?"

Summary Table

	Exit		Home	
Clear comprehension suggested	75%	84%	69%	81%
Some comprehension suggested	13	14	14	17
No comprehension suggested	1	2	2	2
	89%	= 100%	85%	= 100%

V. General Comprehension of Space Research and Its Effects

RESPONDENTS' SELF-EVALUATION ON THE DEGREE OF KNOWLEDGE ACQUIRED THROUGH THE EXHIBIT DOES NOT CHANGE WITH TIME ...

When visitors in both samples were asked to what extent they had learned about space research, replies are apparently not affected by time. In the "Exit" sample 38 per cent claimed to have learned "much" or "very much more" by visiting the exhibit while 36 per cent among those interviewed four weeks later said the same thing.

"Would you please tell me how much, approximately, you now know about what is going on in the field of space research. Do you now know very much more, much more, somewhat more, only a little more about it, or no more than before?"

	Exit		Home	
Very much more	12%	38	11%	36
Much more	26		25	
Somewhat more	46		48	
Only a little more	11		7	
No more than before	5		9	
No opinion	*		-	
	100%		100%	

TIME SEEMS TO AID COMPREHENSION, HOWEVER ...

A more direct and possibly more reliable way to find out how much the audience learned from seeing the exhibit was to ask both samples to tell in their own words what they believed was the main purpose or underlying idea of the exhibition. A classification into groups of those who indicated clear comprehension, those who suggested some comprehension and those who showed no comprehension at all was erected.

In comparing the two samples, one of the most important results of this study emerges. It is the finding that understanding of the theme of the exhibit increased significantly with the passage of time. While immediately after the visit only 61 per cent indicated clear comprehension of the purpose, four weeks later more than 7 out of ten (71%) reached the same degree of understanding.

"What, do you believe, was the main purpose of this exhibition?"

Summary Table

	Exit	Home
Clear comprehension suggested	61%	71%
Some comprehension suggested	36	26
No comprehension suggested	3	3
	100%	100%

* Less than one half of one per cent.

A cross-tabulation between overall impression and comprehension reveals that understanding was particularly improved among those people rating their overall impression of the exhibit as "well" rather than "very well". In other words, a little less enthusiasm seems to go further in producing more comprehension, the latter, of course, is the exhibit's main objective.

"What is (was) your overall impression of the American exhibition in Frankfurt? Did you like it very well, well, fairly well; not so well; or not at all?"

Home

"What, do you believe, was the main purpose of this exhibition?"	Very well (153)	Well (189)	Fairly well (39)	Not so well (4)	Not at all (1)
Clear comprehension suggested	69%	75%	59%	50%	-%
Some comprehension suggested	28	22	33	50	100
No comprehension suggested	3	3	8	-	-
	100%	100%	100%	100%	100%

Study of the replies concerning degree of comprehension according to the personal characteristics of the respondents shows that the men, better educated and prestige occupations have the greatest gain in clarity of comprehension of the exhibit's idea, i.e. with the passage of time the more sophisticated groups seem to have the greatest chance to achieve more comprehension even if their original enthusiasm is more likely to fade.

"What, do you believe, was the main purpose of this exhibition?"

	Clear comprehension		Some comprehension		No comprehension		No. of cases	
	Exit	Home	Exit	Home	Exit	Home	Exit	Home
Total Visitors	61%	71%	34%	26%	5%...100%	3%...100%	400	386
Sex:								
Men	60	71	35	26	5	3	364	361
Women	66	68	28	24	6	8	36	25
Education:								
Elementary school	66	70	26	25	8	5	113	112
Beyond elementary	59	71	37	26	4	3	287	274
Age:								
Up to 18 years	77	68	22	29	1	3	69	69
19 to 24 years	61	75	32	22	7	3	77	78
25 to 34 years	56	65	38	29	6	6	109	100
35 to 44 years	68	67	27	31	5	2	60	61
45 to 54 years	41	82	52	16	7	2	46	50
55 years and over	56	71	39	25	5	4	39	28
Occupation:								
Professionals	49	66	44	30	7	4	77	61
Businessmen	43	76	48	24	9	-	23	25
White-collar workers	61	70	33	27	6	3	86	104
Skilled laborers	63	75	34	21	3	4	65	67
Semi-skilled laborers	57	75	29	25	14	-	7	4
Domestic service	85	66	15	17	-	17	13	6
Farmers; farmhands	50	100	-	-	50	-	2	1
Housewives	67	83	25	17	8	-	12	6
Pensioners; retired	71	100	29	-	-	-	7	6
Students; apprentices	67	68	30	29	3	3	108	106
Place of Residence:								
City of Frankfurt	62	70	34	28	4	2	222	210
Vicinity of Frankfurt	62	67	34	27	4	6	70	64
Other	59	74	34	22	7	4	108	112

VI. Dissemination

In all USIS programs, the dissemination of basic ideas and impressions beyond the individuals comprising the original audience plays an important role. It is most desirable that USIS's influence result not only in favorable changes in attitude among the target groups directly reached by the particular program, film or exhibit, but that these groups also extend that influence further by disseminating the message from person to person in ever-widening circles to a substantial proportion of the West German population.

The design of the present study made it possible to collect some data showing to what extent disseminating activities of an exhibit audience are in operation up to four weeks after visiting the USIS "Space Unlimited" exhibition in Frankfurt.

ALMOST ALL TALKED (FREQUENTLY) ABOUT THE EXHIBITION AFTERWARDS ...

When people were asked whether or not they talked about the exhibit after seeing it, more than 9 out of 10 (93%) replied in the affirmative.

A follow-up question determined how often people spoke about it. The results indicate that visitors talked rather frequently about what they saw. While only 1 out of 5 talked just a few times about the exhibit, a quarter (26%) spoke 3 to 4 times about the subject. A clear preponderance (43%) suggested a considerable amount of dissemination by saying they talked "more often."

"Did you talk to anybody about this exhibition, after you visited it?"

	Home
Yes, did	93%
No, did not	7
	100%

IF "Yes, did":
"Since then, approximately how often have you spoken to someone about this exhibition?"

Once or twice	21%	23%
3 - 4 times	26	28
More often	43	46
Cannot remember	3	3
	93%	= 100%

MOST DISCUSSIONS OCCUR WITHIN FIRST TWO WEEKS AFTER VISIT ...

To determine how long after seeing the exhibit discussions of it occurred, the respondents were asked when they last talked about the exhibit to somebody.

A majority of the visitors indicated that their discussions occurred within the first two weeks after their visit when impressions were still fresh and vivid. A third (38%) of the audience apparently stopped talking about it after the first week, 20 per cent more - or 58% after the second week and another 15 per cent - 73% - after the third. Thus, while seven out of ten (73%) apparently were no longer interested enough to talk about the exhibit after three weeks, a sizeable minority (27%) were still impressed and talking about it four weeks later.

"Can you tell me approximately when you last talked to somebody about this exhibition?"

	Home (386)	(346)	Cumulative percentage
Within the first week after visiting the exhibition	34%	38%	38%
Within the second week after visiting the exhibition	18	20	58
Within the third week after visiting the exhibition	14	15	73
Within the fourth week after visiting the exhibition	24	27	100
	90%	= 100%	
No opinion	3		
	93%		

DISCUSSION INCREASES COMPREHENSION ...

The importance that further dissemination by original viewers plays upon their own understanding of the basic theme is vividly portrayed in the following cross-tabulation. The more frequently viewers spoke about the exhibit with other people, the greater is their own degree of comprehension of the exhibit.

Among those who did not talk about the exhibit at all, a bare majority were found to have a "clear comprehension" of the main purpose of the exhibition. The percentage having a clear comprehension goes up then from 69 per cent (among those who have spoken one to four times) to 75 per cent (among those who have spoken even more often).

	"Since then, approximately how often have you spoken to someone about this exhibition?"		
	Talked frequently (165)	Talked less frequently (194)	Did not talk at all (27)
"What, do you believe, was the main purpose of this exhibition?"			
Clear comprehension	75%	69%	56%
Some comprehension	22	28	33
No comprehension	3	3	11
	100%	100%	100%

MORE OF THE FREQUENT TALKERS FOUND STILL DISCUSSING EXHIBIT ...
FOUR WEEKS LATER ...

Logically it is possible for people, while impressed enough by the exhibit to discuss it frequently with others, to have this discussion all take place within the first days after seeing the exhibit. Actually, as the following table shows, the largest percentage of those who confined their discussions to the first week following their visit, spoke to others but one or two times (47%). Among those who continued their discussions into the second week, the largest group (41%) spoke three or four times. When discussions went on into the third or fourth weeks, majorities (51% and 75%, respectively) spoke more often than three to four times.

In other words, the bulk of the less frequent talkers stopped discussing the exhibit after the first week while majorities of the most recent disseminators continued speaking about the exhibit to many people.

"Since then, approximately how often have you spoken to someone about this exhibition?"

"Can you tell me approximately when you last talked to somebody about this exhibition?"	Spoke about exhibition ... Once or twice	3 - 4 times	More often	Cannot remember	(Home) No. of cases
Within the first week after visiting the exhibition	47%	26%	25%	2%...100%	129
Within the second week after visiting the exhibition	12	41	46	1	69
Within the third week after visiting the exhibition	11	36	51	2	55
Within the fourth week after visiting the exhibition	4	19	75	2	93
No opinion	23	15	31	31	13

DISSEMINATORS REACHED WIDE CIRCLE OF CONTACTS ...

Family members, friends and acquaintances as well as colleagues, i.e. all circles of personal contact were included in the disseminating activities of the exhibit visitors. The greatest amount of talking about the subject occurred with co-workers (52%).

"Do you still remember to whom you talked about it?"

	Home
Family members	39%
Friends, acquaintances	49
Co-workers	52
No opinion/No answer	*
	140%@

* Less than one half of one per cent.
@ Some respondents gave more than one answer.

WHEN OR HOW OFTEN DISCUSSIONS OCCURRED HAS NO BEARING ON CIRCLE REACHED ...

In view of the fact that visitors could speak with family members, friends and/or co-workers, the following tables make clear that there was no tendency to confine discussions (whether frequent or infrequent) to any particular circle.

"Do you still remember to whom you talked about it?"

"Since then, approximately how often have you spoken to someone about this exhibition?"	Family members	Friends, acquaintances	Co-workers	No opinion/ No answer	No. of cases
Once or twice	35%	38%	46%	-%...119%@	81
3 - 4 times	39	52	52	- ...143%@	102
More often	46	62	63	1 ...172%@	165
Cannot remember	55	36	46	- ...137%@	11

"Do you still remember to whom you talked about it?"

"Can you tell me approximately when you last talked to somebody about this exhibition?"	Family members	Friends, acquaintances	Co-workers	No opinion/ No answer	No. of cases
Within the first week after visiting the exhibition	43%	36%	54%	-%...133%@	129
Within the second week after visiting the exhibition	35	65	59	- ...159%@	69
Within the third week after visiting the exhibition	51	62	49	- ...162%@	55
Within the fourth week after visiting the exhibition	41	63	59	- ...163%@	93
No opinion	31	46	54	8 ...139%@	13

@ Some respondents gave more than one answer.

DISSEMINATION CONCENTRATED ON DETAILS OF THE EXHIBIT - ALMOST NO NEGATIVE COMMENTS ...

It is important to determine the content and kind of dissemination which occurs in order to judge whether its effect is beneficial to program objectives. Judging by the results of the following question, probing into what people mainly discussed about the exhibit, a highly favorable conclusion is possible since only 3 per cent indicated any adverse comments (actually of a rather mild nature - see actual comments).

In regard to content, the details of the exhibit seem to be discussed most often - by 70 per cent (among them the rocket and flying techniques and the earth satellite take first place).

"Can you also tell me what you mainly discussed about the exhibition?"

Summary Table

	Disseminators (359)	
No Adverse Dissemination	(93%)	
Details of the Exhibit		
Rocket and flying techniques	17%	
The earth satellite	17	
Electronic research and electronic devices	14	
General problems of space research	10	70%
Space medicine	8	
Technical possibilities and ways to realize them	3	
The stratosphere balloon	1	
The Exhibit in General		
The exhibition as a whole	24%	
I praised the exhibition and recommended visiting it	5	29%
General Arrangement, Organization and Presentation		10%
Miscellaneous		8%
Adverse Dissemination Indicated	(3%)	3%
Contents of Dissemination not Remembered	(4%)	4%
	100% =	124%@

@ Some respondents gave more than one answer.

COMMENTS IN DETAIL ....

"Did you talk to anybody about the exhibition, after you visited it?"

IF "Yes, did":
"Can you tell me what you mainly discussed about this exhibition?"

	Disseminators (359)
DETAILS OF THE EXHIBITION	(70%)
Rocket and flying techniques:	17%
"We talked about how a rocket is equipped and how long it can stay in the air."	
"We discussed rockets of the type V1, V2 and about AA, and propulsion techniques."	
"We talked about the performance of rockets."	
"Above all, we discussed the present stage of rocket research development."	
"We mainly discussed the development of airplanes and rockets."	
The earth satellite:	17
"I pointed out to my friends that the satellite project opens up new vistas."	
"I explained the technical equipment of satellites."	
"We discussed the launching and speed of satellites."	
"I talked about the thrust and movement of a satellite."	
"Mostly, we talked about how they will go about shooting a satellite into space. Also we discussed the small size of satellites and of the instruments which are to be fitted into them."	
Electronic research and electronic devices:	14
"We discussed the latest developments in measuring instruments, amplifiers and transistors."	
"I talked about the photo-electric steering of rockets."	
"Mainly, we were concerned with radio communication techniques."	
"We talked about the electronic brain."	
General problems of space research:	10
"We argued whether or not it will be possible to fly to the moon."	
"We talked about the practical application of space research findings, wondering whether man will succeed in penetrating outer space during our lifetime."	
"Our chief topic of conversation was whether or not the Americans will succeed in landing a rocket on another planet."	
"We discussed the possibility of sending even living beings out into the stratosphere."	
"We discussed the development of techniques which will make it possible for man to explore space."	

(Cont'd on next page)

(Cont'd from preceding page)

Disseminators

Space medicine: 8%

"We discussed the physical hazards a pilot has to stand during a space flight."
"We discussed the effects of high speeds on humans."
"We discussed the findings of space medicine research."
"We occupied ourselves with space medicine."

Technical possibilities and ways to realize them: 3

"We discussed the prospects of technology, whether or not the things shown here can be realized."
"We talked about future prospects of technology."
"We discussed whether or not and how the projects illustrated at the exhibition can be actually carried out."

The stratosphere balloon: 1

"Chiefly, we talked about the stratosphere balloon."

THE EXHIBIT IN GENERAL (29%)

The exhibition as a whole: 24

"I described my overall impression of the exhibition."
"I touched on everything that was shown."
"In a question- and answer-conversation, I presented a comprehensive view of the exhibition."
"As some friends also had visited the exhibition, we discussed what we had seen there."
"I explained what was shown in the different sections of the exhibition."
"I described the scope and the purpose of the exhibition."
"I explained what the idea behind the exhibition was."

I praised the exhibition and recommended visiting it: 5

"I told my friends that I considered it worthwhile to visit the exhibition and recommended seeing it."
"I told my friends that this exhibition was most educational for young people."
"I mentioned that the exhibition was very interesting and that it helped you to gain an insight into this branch of science."

GENERAL ARRANGEMENT, ORGANIZATION AND PRESENTATION (10%)

"We talked about the methods which had been used in preparing this exhibition. Things were arranged according to an ordered system and that's why they were easy to understand."
"I talked about the clear and ingenious arrangement of the exhibition and mentioned that the models for demonstration were well done."
"We discussed the plan of the exhibition and the techniques used to help people to comprehend the subject."
"We agreed that although the exhibition offered an abundance of material, it was arranged in such a way that the theme was easy to understand."
"They succeeded in conveying a clear idea of what the universe is like."

(Cont'd on next page)

(Cont'd from preceding page)

Disseminators

MISCELLANEOUS (8%)

"We discussed the economic consequences which the scientific findings so far achieved will have."
"We discussed details about the sound barrier. I would like to get some literature on this subject."
"We talked about the tele-camera and the photographs of the earth."
"We talked about propulsion, acceleration and zero gravity."
"After having seen the historical section, we discussed the contribution of German scientists in this field of research."

ADVERSE DISSEMINATION INDICATED (3%)

"I thought it was a negative trend that no new things were shown there."
"I felt the whole show was rather superficial."
"The technical side of this branch of research didn't occupy as prominent a place as I had expected."
"It was a nuisance that there were so many kids around. They should have made room for the adults. An age limit should have been imposed."

CONTENTS OF DISSEMINATION NOT REMEMBERED (4%)

124%@

@ Some respondents gave more than one answer.

VII. Additional Information on the Subject Acquired After the Exhibit

The last part of this report will discuss the extent to which exhibition visitors were exposed to other information about the subject after seeing the "Space Unlimited" show and what effect that had on the two most important aspects, comprehension and dissemination, of the exhibit's message.

SIZEABLE PROPORTION READ ABOUT EXHIBIT'S SUBJECT AFTER VISIT ...

Asked whether they had read something in papers, periodicals or some other publications which reminded them of what was shown at the exhibit, a sizeable number of respondents (41%) replied in the affirmative.

"Did you, since you visited the exhibition, read something in the papers, in periodicals, brochures or in some other publication which reminded you of the exhibition and of what was shown there?"

	Home
Yes (Where did you read it? And what was said there?)	41%
No, read nothing about it	59
	100%

NEWSPAPERS LEADING SOURCE OF ADDITIONAL INFORMATION ...

In view of the special nature of the theme, it is interesting to note that people read more in newspapers about the subject of the exhibit than in any other type of publication. One should not forget, however, that newspaper reading is normally one of the common forms of media usage (exceeded only by radio).

"Did you, since you visited the exhibition, read something in the papers, in periodicals, brochures or in some other publication which reminded you of the exhibition and of what was shown there?"

IF "Yes":
"Where did you read it?"

	Home
A - Newspapers	(53%)
Frankfurter Allgemeine Zeitung	14%
Frankfurter Rundschau	7
Frankfurter Neue Presse	6
Other Non-Frankfurt papers	26
B - Periodicals	(20%)
Periodicals on natural sciences and technical periodicals	10
Other periodicals	10
C - Pictorials	(16%)
Frankfurter Illustrierte	8
Other pictorials	8
D - Other Publications	(20%)
Brochure on the exhibition	8
Books	4
Other sources	4
No opinion/No answer	4
	109%@

@ Some respondents gave more than one answer.

ONE-THIRD OF "READERS" READ ABOUT THIS SPECIFIC EXHIBIT ...

Though a plurality (46%) of those having read anything in connection with the exhibit or its theme read about various details concerning space research, a sizeable group (one-third) read something about the exhibit itself.

"Did you, since you visited the exhibition, read something in the papers, in periodicals, brochures or in some other publication which reminded you of the exhibition and of what was shown there?"

IF "Yes":
"And what was said there?"

Summary Table

	(159)**
Details of Space Research	(46%)
The latest developments and problems of space research	18%
Rocket research and types of rockets	12
The earth satellites	10
Jet planes	2
Stratosphere Balloon	2
Electronic research and radar equipment	2
The Exhibition in General	(33%)
The Frankfurt exhibition	31
The exhibition in other cities	2
Miscellaneous	(16%)
Science and research	3
The geophysical year	3
Other answers	10
Can't remember	(12%)
	107%@

** Those who read something about the subject after seeing exhibit (159 cases = 100%)

@ Some respondents gave more than one answer.

COMMENTS IN DETAIL ...

"Did you, since you visited the exhibition, read something in the papers, in periodicals, brochures or in some other publication which reminded you of the exhibition and of what was shown there?"

IF "Yes":
"And what was said there?"

(159)

DETAILS OF SPACE RESEARCH (46%)

The latest developments and problems of space research: 18%

"The progress in space research achieved up till 1955 was discussed."
"I was reminded of the exhibition by an article, dealing with the preparatory work for future space research."
"The complexity of space research was discussed."
"The problem of space flight was touched on."
"A trip to the moon was described."
"A flight to Mars was described."

Rocket research and types of rockets: 12

"Historical data regarding the development of rocket research were furnished."
"Tests with rocket sleds were described."
"Different kinds of rockets were discussed."
"Russian and American rockets were compared."

The earth satellites: 10

"Details on the construction of the earth satellite were given."
"It was said there that in summer they intend to shoot a satellite into space and that other countries, too, will start developing satellites. They mentioned Russia, Great Britain and France."
"The functioning of a satellite was explained and it was predicted that a prototype will be shot into space in 1957."

Jet planes: 2

"The article dealt with the development of jet airplanes."
"They wrote about jet engines. Tables illustrated who reached the highest altitudes and the greatest speeds."

Stratosphere Balloon: 2

"The stratosphere balloon was discussed."
"The topic was the stratosphere balloon."

Electronic research and radar equipment: 2

"The article dealt with the new flat television tube for industry."
"The installation of a radar system was shown there."

(Cont'd on next page)

(Cont'd from preceding page)

THE EXHIBITION IN GENERAL (33%)

The Frankfurt exhibition: 31%

"The exhibition was discussed. It was pointed out that everything was shown so clearly that even a layman would understand it."
"A report on the exhibition was published. Besides I saw pictures of the exhibition."
"A survey of the exhibition was given."
"A notice discussed the things shown at the exhibition."

The exhibition in other cities: 2

"The exhibition will be shown in Stuttgart soon."
"It was mentioned that the exhibition will also be displayed in Darmstadt and Duesseldorf."

MISCELLANEOUS (16%)

On science and research: 3

"Plans for the future were discussed and the stage of development in the U.S. was compared to Russian achievements."
"In a publication I found an optimistic view on the prospects of this young branch of science."
"Readers were enlightened on the different conceptions of Einstein and Oppenheimer."
"The research work which has been done in this field was described."

The geophysical year: 3

"An article dealt with the geophysical year."
"The geophysical year was discussed."

Other answers: 10

"The idea was expressed that in our days the technical age begins in earnest."
"An article was published on test pilots."
"Medical experiments were described."
"They mentioned that near Darmstadt Nike rocket-launching bases are to be built."

CAN'T REMEMBER (12%)

107%

○ Some respondents gave more than one answer.

POSITIVE RELATIONSHIP FOUND BETWEEN THOSE ADDITIONALLY EXPOSED AND DEGREE OF COMPREHENSION ...

When a cross-tabulation is made between additional reading on the subject after the exhibit and comprehension of the exhibit's theme, it is found that somewhat more people (75%) of those having done additional reading have a clearer understanding than can be found among those who had no additional information (67%). Nevertheless, respondents interviewed four weeks later with no reading on the subject still show slightly greater comprehension than can be noted among those interviewed right at the exhibit (67% versus 61%). The difference of 6 percentage points, however, is barely significant statistically.

"Did you, since you visited the exhibition, read something in the papers, in periodicals, brochures or in some other publication which reminded you of the exhibition and of what was shown there?"

"What, do you believe, was the main purpose of this exhibition?"	Exit	Home	
	Total (400)	Yes (159)	No (227)
Clear comprehension	61%	75%	67%
Some comprehension	36	22	29
No comprehension	3	3	4
	100%	100%	100%

A P P E N D I X

"After having seen this exhibition, do you have the impression that American space research is carried on more for warlike or more for peaceful purposes?"

	More for warlike purposes		More for peaceful purposes		For both purposes		No opinion		No. of cases	
	Exit	Home	Exit	Home	Exit	Home	Exit	Home	Exit	Home
Total Visitors	7%	13%	61%	51%	25%	31%	7%...100%	5%...100%	400	386
Sex:										
Men	7	13	60	52	27	31	6	4	364	361
Women	8	12	64	40	14	36	14	12	36	25
Education:										
Elementary school	9	10	65	52	21	34	5	4	113	112
Beyond elementary	7	14	59	51	27	30	7	5	287	274
Age:										
Up to 18 years	6	15	74	52	16	29	4	4	69	69
19 to 24 years	9	13	57	60	26	21	8	6	77	78
25 to 34 years	10	14	57	38	30	41	3	7	109	100
35 to 44 years	8	13	55	51	27	34	10	2	60	61
45 to 54 years	4	8	61	62	22	24	13	6	46	50
55 years and over	-	11	64	53	31	36	5	-	39	28
Occupation:										
Professionals	4	12	50	46	34	34	12	8	77	61
Businessmen	9	8	56	64	26	28	9	-	23	25
White-collar workers	12	15	52	54	29	28	7	3	86	104
Skilled laborers	9	7	66	51	19	36	6	6	65	67
Semi-skilled laborers	-	-	57	50	29	50	14	-	7	4
Domestic service	8	33	77	33	15	34	-	-	13	6
Farmers; farmhands	-	-	50	-	-	100	50	-	2	1
Housewives	8	-	84	50	-	50	8	-	12	6
Pensioners; retired	-	-	57	50	43	50	-	-	7	6
Students; apprentices	6	16	68	51	24	26	2	7	108	106
Place of Residence:										
City of Frankfurt	9	14	60	52	23	31	8	3	222	210
Vicinity of Frankfurt	9	11	61	52	23	28	7	9	70	64
Other	4	11	61	50	31	33	4	6	108	112

"To what extent do you think the United States of America is willing to share its scientific findings with other nations: Is it very willing, somewhat willing, not willing or definitely unwilling?"

	Very willing		Somewhat willing		Not willing		Definitely unwilling		No opinion		No. of cases	
	Exit	Home	Exit	Home	Exit	Home	Exit	Home	Exit	Home	Exit	Home
Total Visitors	41%	28%	52%	62%	2%	3%	1%	1%	4%...100%	6%...100%	400	386
Sex:												
Men	40	27	53	64	2	2	1	1	4	6	364	361
Women	50	36	30	48	3	4	3	-	14	12	36	25
Education:												
Elementary school	41	24	52	65	3	3	-	2	4	6	113	112
Beyond elementary	41	30	52	61	1	3	1	*	5	6	287	274
Age:												
Up to 18 years	41	29	56	61	-	4	-	-	3	6	69	69
19 to 24 years	28	23	63	67	3	4	3	1	3	5	77	78
25 to 34 years	44	20	49	68	2	2	-	1	5	9	109	100
35 to 44 years	44	33	50	60	2	2	2	2	2	3	60	61
45 to 54 years	46	34	43	58	2	2	-	-	9	6	46	50
55 years and over	46	46	43	50	3	-	-	-	8	4	39	28
Occupation:												
Professionals	46	29	48	64	1	-	-	-	5	7	77	61
Businessmen	44	52	48	36	4	4	-	4	4	4	23	25
White-collar workers	43	28	48	66	1	2	1	1	7	3	86	104
Skilled laborers	35	23	63	67	2	3	-	-	-	7	65	67
Semi-skilled laborers	29	50	43	50	14	-	-	-	14	-	7	4
Domestic service	54	33	38	33	-	17	-	-	8	17	13	6
Farmers; farmhands	-	-	100	100	-	-	-	-	-	-	2	1
Housewives	58	33	17	33	-	-	8	-	17	34	12	6
Pensioners; retired	57	83	14	17	14	-	-	-	15	-	7	6
Students; apprentices	36	21	60	67	1	4	1	1	2	7	108	106
Place of Residence:												
City of Frankfurt	38	24	54	67	3	3	1	1	4	5	222	210
Vicinity of Frankfurt	40	26	52	64	-	2	1	-	7	8	70	64
Other	47	37	47	53	1	3	-	*	5	7	108	112

* Less than one half of one per cent.

"Did you, since you visited the exhibition, read something in the papers, in periodicals, brochures or in some other publication which reminded you of the exhibition and of what was shown there?"

	Yes	No	No. of cases
Total Visitors	41%	59%...100%	386
Sex:			
Men	41	59	361
Women	40	60	25
Education:			
Elementary school	35	65	112
Beyond elementary	44	56	274
Age:			
Up to 18 years	41	59	69
19 to 24 years	44	56	78
25 to 34 years	41	59	100
35 to 44 years	46	54	61
45 to 54 years	34	66	50
55 years and over	39	61	28
Occupation:			
Professionals	56	44	61
Businessmen	32	68	25
White-collar workers	41	59	104
Skilled laborers	33	67	67
Semi-skilled laborers	25	75	4
Domestic service	50	50	6
Farmers; farmhands	-	100	1
Housewives	33	67	6
Pensioners; retired	33	67	6
Students; apprentices	42	58	106
Place of Residence:			
City of Frankfurt	44	56	210
Vicinity of Frankfurt	31	69	64
Other	41	59	112

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